Agricultural Chemical Usage – 2004

Overview

The agricultural chemical use estimates refer to on-farm use of commercial fertilizers and pesticides on targeted crops for the 2004 crop year. The targeted crops for Iowa only included soybeans. Farm and ranch operators were enumerated late in the growing season after the farm operator had indicated that planned applications were completed.

The data were compiled from the Agricultural Resources Management Survey (ARMS). The main portion of data collection time frame occurred during the months of October-December of 2004.

This report excludes pesticides used for seed treatments and postharvest applications to the commodity. Spot treatments, which account for a very small percentage of total applications, are also excluded.

Soybeans: Agricultural Chemical Applications, Iowa, 2004[1]

Agricultural Chemical	Area Applied	Applications	Rate per Application	Rate per Crop Year	Total Applied
	Percent	*Number*	*------Pounds per Acre------*		
FERTILIZERS:					Million lbs.
Nitrogen	10	1.6	24	39	38.4
Phosphate	11	1.5	58	90	99.8
Potash	15	1.5	71	103	157.2
HERBICIDES:					1,000 lbs.
Chlorimuron-ethyl	6	1.1	0.02	0.02	13
Clethodim	2	1.0	0.07	0.07	15
Cloransulam-methyl	3	1.0	0.02	0.02	6
Fomesefen	2	1.4	0.19	0.26	57
Glyphosate	87	1.4	0.74	1.01	9,012
Imazamox	1	1.0	0.03	0.03	4
Imazathapyr	5	1.1	0.05	0.06	28
Lactofen	1	1.0	0.10	0.10	15
Metribuzin	1	1.0	0.24	0.24	28
Pendimethalin	7	1.0	0.82	0.84	641
S-Metolachlor	1	1.0	1.52	1.52	204
Sulfentrazone	8	1.1	0.11	0.12	97
Sulfosate	2	1.6	1.09	1.74	368
Trifluralin	14	1.0	0.78	0.79	1,152
INSECTICIDES:					
Lambda-cyhalothrin	1	1.0	0.02	0.02	2

[1] Planted acres in 2004 for Iowa were 10.2 million acres.

Highlights

Soybeans: Eleven states were included in the 2004 survey: Arkansas, Illinois, Indiana, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, Ohio, and South Dakota. Phosphate was the most commonly used fertilizer on soybeans; it was applied to 26 percent of acreage in the Program States. A total of 1,095.9 million pounds of phosphate were applied to the Program State acreage. North Dakota had the highest phosphate coverage of any other state, applying phosphate to 63 percent of their planted soybean acreage. South Dakota had the second highest coverage, applying phosphate to 45 percent of their fields. All other states applied phosphate to less than 40 percent of their planted acreage. Iowa only applied it to 11 percent of their planted acreage. Potash was the next most frequently applied fertilizer, with 23 percent of acres planted being treated; a total of 1,733.9 million pounds were applied. Again great variability existed, Ohio applied potash to 43 percent of its planted acreage, while Kansas only treated 5 percent. Nitrogen had the smallest acreage coverage at only 21 percent of Program State acres, with 358.1 million pounds distributed.

Herbicides were applied to 97 percent of the Program State acreage though one active ingredient clearly dominated. Glyphosate was used on 87 percent of all the acres treated, 0.73 pounds of gyphosate were applied per acre per application, and 57.7 million total pounds of glyphosate were applied. The next four most widely used active ingredients were also herbicides, but their percent of acres treated were much smaller. Chlorimum-ethyl, sulfentrazone, trifluralin, and pendimethalin rounded out the top five active ingredients at 7, 6, 5, and 4 percent of acres treated, respectively.

Insecticides were used on 4 percent of the Program State acres, but individual active ingredients only covered a maximum of 1 percent of soybean Program State acreage. Fungicides were applied to only 1 percent of the Program

State acres; only the active ingredient azoxystrobin was reported.